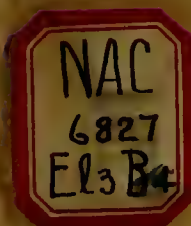


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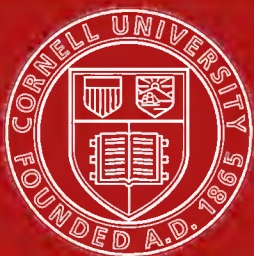
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Plan of Elgin

Prepared for
Elgin Commercial Club
by
E. H. Bennett, Consulting Architect



Elgin, Illinois, January, 1917

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Charles H. Hulburd, who through the Elgin Commercial Club,
graciously provided the funds necessary to make the Elgin City
Plan a possibility.

To His Honor, the Mayor,
To the City Commissioners,
To the Citizens of Elgin:

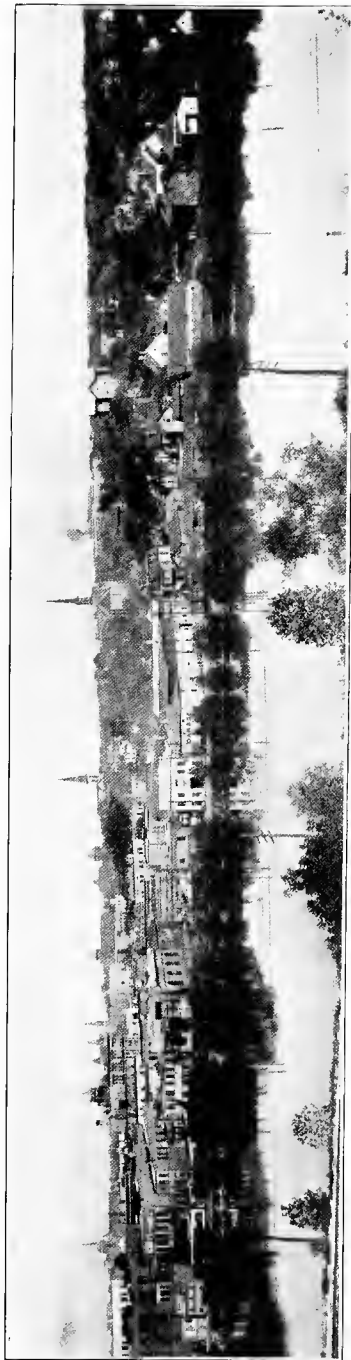
The Elgin Commercial Club, through the courtesy of Mr. Charles H. Hulburd, the D. C. Cook Publishing Company, the Lithotype Company, and other public-spirited institutions and individuals too numerous to mention, both local and foreign, is hereby enabled to present to you for your careful study, consideration and support, this Comprehensive City Plan for Elgin.

The purpose of the Elgin City Plan is to provide a systematic method for Elgin's social, æsthetic and economic development, which, if carried out, will create for the community the maximum of health, happiness and efficiency; to crystallize public sentiment on the improvements suggested, and thereafter to bring about through education and coöperation the accomplishment of the recommendations.

Respectfully submitted,

B. S. Pearsall, President.
I. Hatch, First Vice President.
M. J. Kimball, Second Vice President
George W. Glos, Treasurer.
E. S. Eno,
Wm. Grote,
Edwin Hall,
H. D. Hemmens,
Wm. Kerber,
A. L. Paulson,
Joseph Spiess,
Board of Control,
Elgin Commercial Club.

E. H. Krueger, Secretary,
January, 1917.



A View of Elgin Looking Northeast from South State Street.

The Plan of Elgin

This report is general in scope. It outlines the direction and character of the city's growth, with the arteries and other factors essential to its proper expansion.

The plans referred to in the report are a part of it, they are based on existing conditions and an estimate of future necessities of a moderate nature. No attempt is made to paint a future of extraordinary development, but to present a picture of normal conditions of growth governed by considerations of fineness and real worth rather than mere size.

The recommendations, however, are such that if carried out they will be of first importance in the development of a city of large size. The more important problems of a city are herein treated briefly as is consistent with the limitations imposed:

The street system and its extensions; control of building development; the parks and playgrounds and a center for public buildings. Also the treatment of the river banks and the reorganization and amplification of the railroad lines.

These two last are the dominant features of the plan. Taken in conjunction with one another they present the great opportunity of Elgin to set a standard of improvement and to remove from its future the menace of the intolerable conditions prevalent in cities of larger size. Especial attention is, therefore, invited to these features which constitute the backbone of the general plan.

Improvements and reforms that are carried out will have important results, which will affect the welfare of the community. The problems are far-reaching. Account has been taken of the strong influence which the railroads have on factory locations and on the character of housing; the influence of street plans and lot depths upon building heights and their effect upon light and air and privacy in the home.

The aim of the plan is to create conditions of living such that the maximum of health, happiness and efficiency may be attained by the citizens; to create in the minds of the people that sense of the entity of a city, and of the interdependent relationship of its various elements as will promote a true spirit of coöperation.

Growth of Elgin

Elgin is destined to grow as a center of a rich agricultural district, near a great market.

The name of the city is a valuable asset. It is the trade-mark of products of international reputation and it should be an incentive to all persons interested financially and otherwise in Elgin, to put forth their greatest efforts to the

end that the city will grow into a large, well-conducted and coördinated community.

Coördination of freight facilities—water, railroad, street car—must be realized so that industry may develop and that the great dairy product interests may become greater.

An important factor in the growth of population in Elgin is its activity as a manufacturing community. If its public-spirited organizations encourage the building of new industrial establishments, population increase will be felt proportionately.

Assuming a growth based on its past record, which is tabulated below, Elgin will have a population of about 65,000 in 1960.

	1830	First settlers.
	1835	73 voters.
	1854	Incorporated.
1st U. S. Census.....	1860	2797
2nd U. S. Census.....	1870	5441 ave. annual incr.....7.0%
3rd U. S. Census.....	1880	8787 ave. annual incr.....5.0%
4th U. S. Census.....	1890	17823 ave. annual incr.....7.2%
5th U. S. Census.....	1900	22433 ave. annual incr.....2.5%
6th U. S. Census.....	1910	25976 ave. annual incr.....1.5%
U. S. Census Bureau Est.....	1914	27485 ave. annual incr.....1.4%
Future Estimate:	1920	31700 ave. annual incr.2.0%
	1930	38700 ave. annual incr.....2.0%
	1940	44500 ave. annual incr.....2.0%
	1950	54400 ave. annual incr.....2.0%
	1960	64400 ave. annual incr.....2.0%

If the output of manufactured products is increased, the population increase may be much greater than estimated. The growth of the Elgin National Watch Company had this effect thirty years ago. Between 1880 and 1890 the annual rate of increase exceeded 7%.

Although there will be differences of opinion as to the rate of increase, Elgin will have twice its present population within a generation—a strong argument for preparation for the proper arrangement of its public utilities. If street and transportation changes are necessary they should be begun at once. If parks and playground lands are needed, steps should be taken now toward locating and acquiring them. If the control of building districts is necessary, it should be systematic and immediate.

TOPOGRAPHICAL SURVEY:

IT IS RECOMMENDED THAT THE CITY PROVIDE FUNDS FOR THE PREPARATION OF AN ACCURATE CONTOUR MAP OF THE CITY AND VICINITY WITHOUT DELAY AS A BASIS FOR MORE DETAILED STUDY OF SOME OF THE PROBLEMS. It should be not smaller than 400' to the inch. Roads should be accurately located and contour intervals of 5' should be shown. The limits of the map should extend well beyond the corporation lines so as to include a territory 10,000 acres in extent.

Benches should be established and grades fixed on all existing streets, as well as on those that are added from time to time. The system of outlying streets suggested on the plans must be revised on the basis of such a survey, and the drainage scheme cannot be even designed properly until the survey has been made.

Area and Densities.

In laying down a system of main thoroughfares for vehicular traffic, and streets along which car lines may be laid in the future, it is necessary to plan beyond the time when the promoters of land subdivision would naturally desire to open new streets in the outlying districts. To the end that this may be done in the finest manner the city is urged to have the topographical survey made. The physical conditions within the limits of an area which may be required to house the people when the city has reached a population of 65,000 will in this way be recorded.

To determine the 10,000 acre area it has been necessary to assume certain population densities. The average density includes tracts on the outskirts that are vacant but platted; a condition which exists in all communities.

Densities of population in several cities might be studied for comparison:

	Area.	Population.	Density.
Danville	6000.0	30847	5.1 people per acre
Elgin	4331.1	27485	6.3 people per acre
Evanston	3887.0	27724	7.1 people per acre
Aurora	4245.0	33022	7.7 people per acre
Peoria	6020.0	70006	11.6 people per acre
Joliet	2430.0	36934	15.1 people per acre

The areas within the corporate limits of Elgin given over to the various utilities are:

Business	34.00 acres. (Streets Incl.)
Industrial and railroad	120.00 acres.
Housing (built up) 1484 A.	
Scattering & Vacant 1673.75.....	3157.75 acres. (Streets Incl.)
Parks (Lord's 110, Wing 121.55, Central 3.7, Gifford 1.5, 5 small spaces 1.7.....)	238.25
Cemeteries	127.10
Elgin State Hospital	404.00
River and ground along banks.....	250.00
Gross area (within city limits).....	4331.10 acres

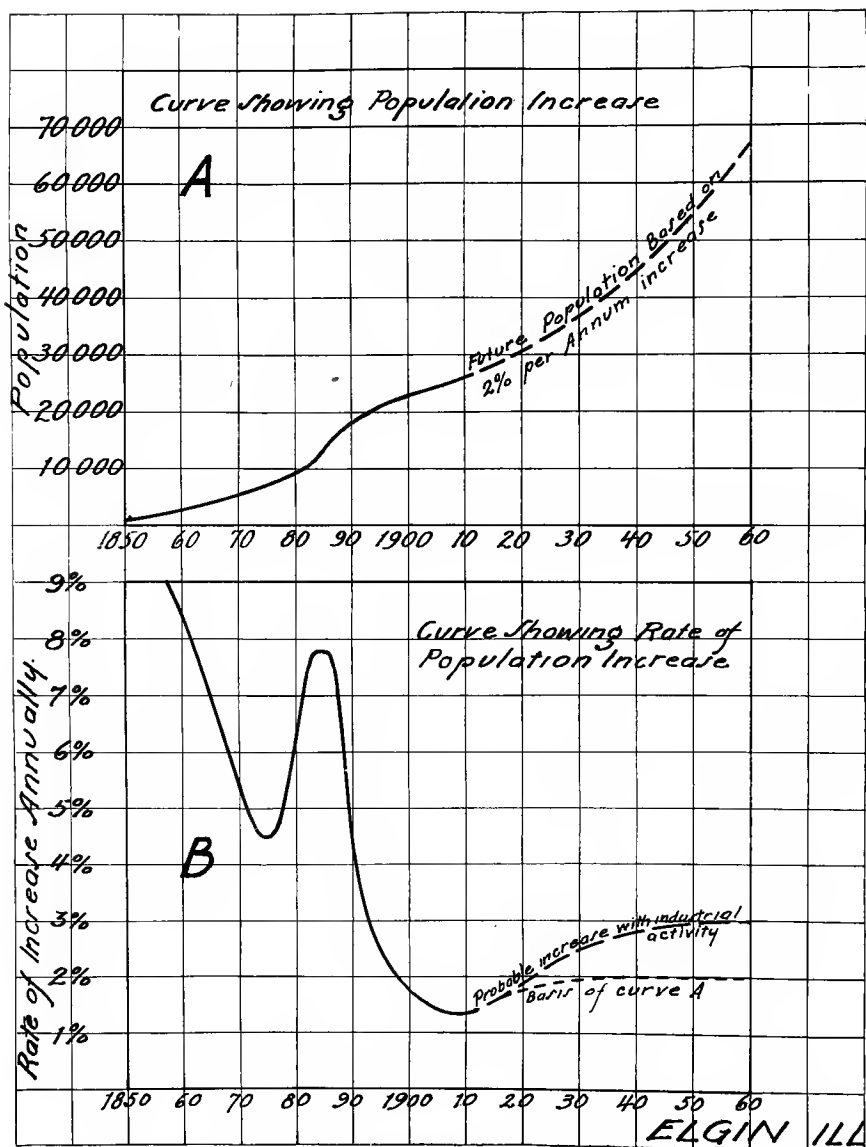
It is seen that the population densities are:

Average of 6.3 people per acre—over the gross area—

Average of 8.6 people per acre—over the housing area—

Average of 15. people per acre—for that part of the housing area which is well built up; this area probably housing 4-5 of the people.

The area of Elgin when it will have reached a population of 65,000 will



The rate curve "B" is based on figures of population growth from a group of cities of the average size of Elgin. It shows the generally decreasing rate of percentage of increase.

The rate curve "A" is based on an average annual rate of increase of two per cent or normal growth, as shown plotted on curve "B" from 1916 on.

as before stated, be about 10,000 acres and it is shown on the Highway Map No. 1. This will include areas that are scattering and vacant but platted. The arterial system should be schemed well beyond the new subdivision developments so that continuity, directions, distances apart and widths of the lines of communication may be laid out in conjunction with and as a part of new subdivisions instead of being hampered by them.

Districting

The restriction of certain classes of buildings to different sections of the city is essential. Briefly outlined for Elgin herein it should be taken up at once in detail. It can be authoratively stated that districting will stabilize real estate values in all sections of the city, and that land values will be higher and taxing power greater than if building restrictions have not been imposed. The power of a city to limit building heights, to eliminate retail business operation from certain localities, to prohibit the development of industrial establishments within certain zones, to permit the erection of fireproof buildings only within given areas, to allow the occupancy of a fixed portion of a building lot with the building, have all been exercised in various parts of the country. Furthermore, definite plans for districting already exist in some of our cities, and the recognition of the principle is becoming universal. **THE FUNDAMENTAL CONSIDERATION IS THAT OF SEPARATION OF HEAVY INDUSTRY AND RESIDENCE.** A plan fixing boundaries of the various areas, should be made the subject of immediate special study and steps should be taken to legalize such restrictions as may be found expedient.

It is recommended that, in order to meet the needs of Elgin, the program include:

Building height restrictions.

Fire limit laws.

Establishment of residential districts in which only one and two family houses, private garages and private stables are permitted.

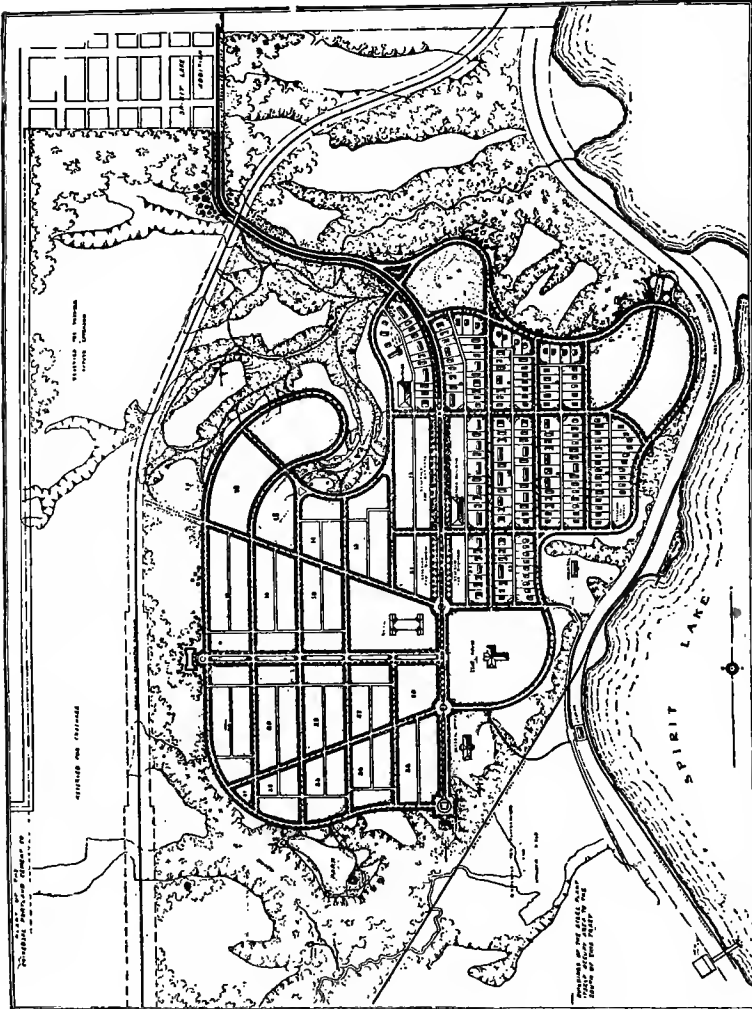
Establishment of areas in which either retail business or laundries or public garages or light, unobjectionable manufacturing establishments or all of them will be permitted. These areas may be small or scattered and even further subdivided to admit of retail stores of certain kinds being located in parts of certain residential areas.

Establishment of areas in which multiple family dwellings will be permitted.

Establishment of industrial districts.

The control of building line. This subject is discussed under "The Street System."

Any ordinance which might be drawn for the purpose of districting for Elgin should emphatically be framed with a view to helping in every reasonable manner the manufacturing interests of the city.



Plan of an industrial town established by the Minnesota Steel Co., near Duluth, Minn., showing how the housing areas are separated from factory locations by broad parked strips.

This photograph kindly furnished by Mr. Owen Brainard, Consulting Engineer.

In planning for the development of an industrial community, industry and housing must be considered not as separate problems, but as closely related. They are mutually dependent. In Elgin the relation between factory locations and the homes of the workers is reasonably well adjusted to meet present conditions. The majority of homes are either within walking distance of, or there is street-car transportation to the factories.

With the gradual development of extensive manufacturing activities south of Elgin, a new residential section adjoining the industrial sites will naturally be formed, but in addition to this it is necessary that conveniently located street-car transportation between the proposed factories and the present industrial population be established. Preferably one of these should be a cross-town line going directly north without passing through the business section. There must

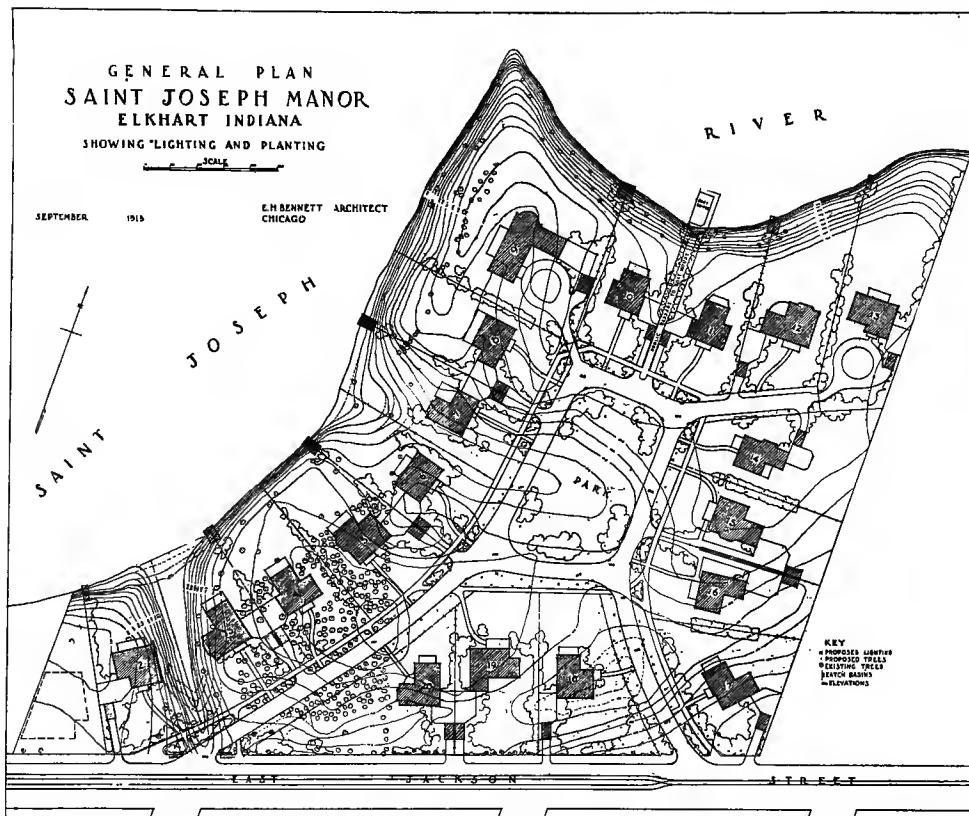


Illustration of better class residence subdivision in which restrictions as to the frontage, character and cost of buildings and the location of garages and boathouses are imposed for the general benefit of the subdivision.

eventually be a direct line to serve the population on the west side of the river, for which a new bridge will be required.

Land Subdivision

Proper land subdivision is vital. It must relate to the arterial skeleton. A general indication of such planning is shown on the general plan No. 2.

The sizes of lots that are being added to Elgin from time to time, in new subdivisions, vary as in other cities for no reason that is obvious. Restrictions

as to lot sizes are suggested for all future subdivisions. When the city is laid out into districts a desirable regulation is one which provides that one one-family house and one two-family house be permitted to be built on each 50' and 60' x 100' lot respectively, with no buildings nearer to the property line along the street than 15' and no building nearer to other property lines than 8'.

A reasonable modification of the side property line restriction may be made in the case of semi-detached house planning. The erection of multiple family houses should be allowed in restricted areas, but with the number of families to the acre limited.

The wasteful effect of too deep lots, when property values rise, is indicated by the system of building houses on alleys or two and three deep on interior lots—a vicious practice and one that should be prohibited.

FOR GENERAL USE NO LOTS SHOULD BE DEEPER THAN 125' IN HOUSING AREA.*

Industry and Housing

Elgin is dependent chiefly upon industry for its support. It will advance or recede in accordance with the state of its manufacturing establishments. The city can materially help the advancement of industry by developing its industrial facilities, factory sites, transportation and living conditions.

A purpose of the Elgin plan is to determine the industrial areas, to promote the improvement of transportation facilities, to suggest the betterment of living conditions for Elgin's industrial population, and to recommend the preservation of its natural advantages which so largely contribute to the general amenities of living. Incidentally the city plan, sufficiently illustrated, serves as a means of advertising the industrial advantages of Elgin. •

To-day the factories of Elgin are scattered throughout the city. Some of them are without railway connection. Fortunately most of those plants in residential localities are of such a nature as not to be seriously objectionable to the people living near by.

The extension or establishment of new factories within the present built-up housing areas should, however, be limited to such light manufacturing as is entirely unobjectionable; otherwise depreciation of the land values is inevitable.

IT IS RECOMMENDED, THEREFORE, THAT A NEW INDUSTRIAL AREA BE ESTABLISHED WHERE THE LARGE TRACTS REQUIRED BY UP-TO-DATE FACTORIES ARE AVAILABLE, AND WHERE THE PRESENT RESIDENTIAL DEVELOPMENT OF THE CITY WILL BE IN NO WAY INJURED. THE AREA RECOMMENDED IS THE LAND LYING BETWEEN THE C. M. & ST. P. R. R. AND C. & N. W. R. R. SOUTH OF THE CITY.

No attempt has been made to plan the industrial area in detail, but when this is done, fundamental requirements should not be ignored. Separating the

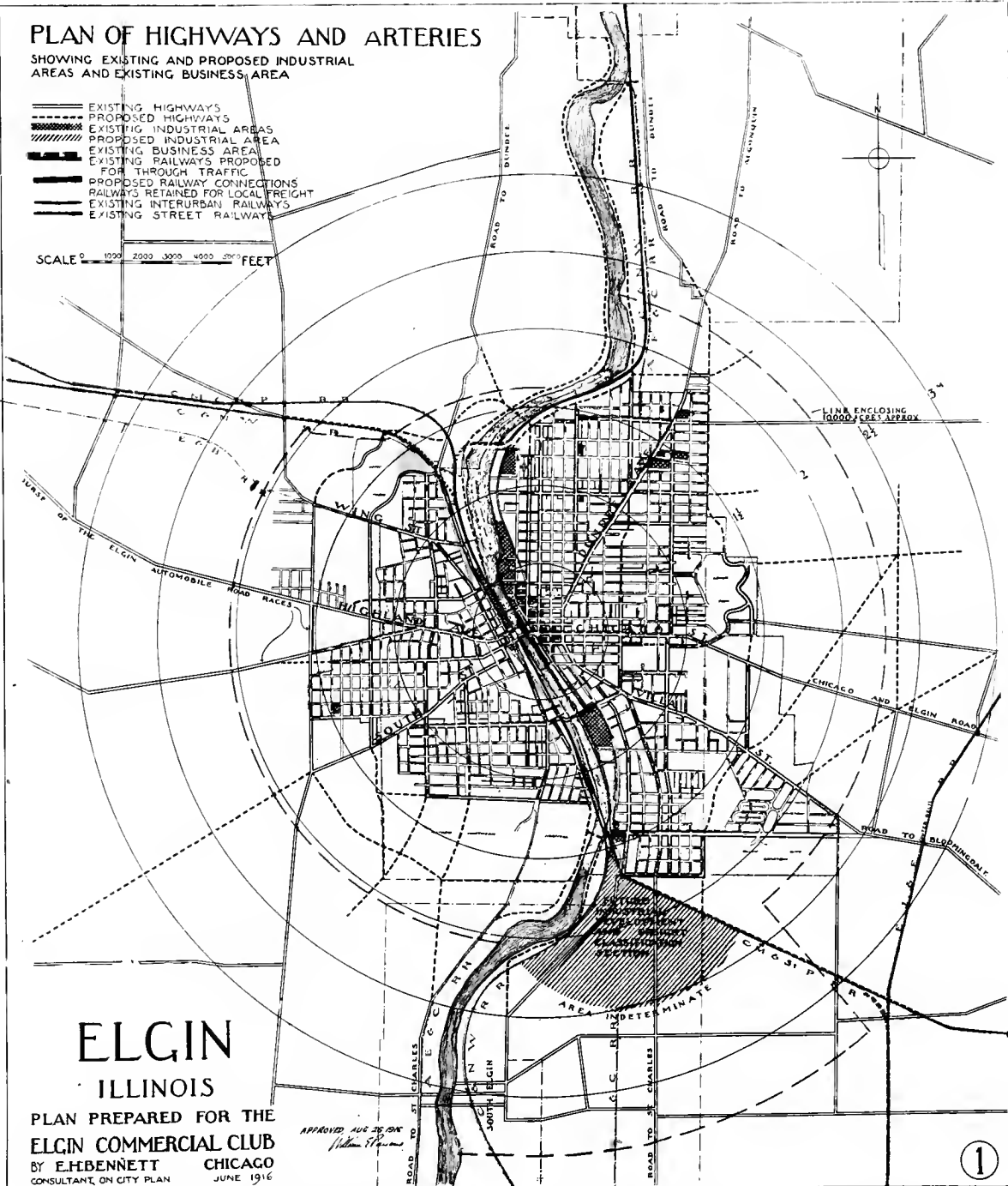
*Note.—Refer also to discussion of street system, pages 21 and 22.

PLAN OF HIGHWAYS AND ARTERIES

SHOWING EXISTING AND PROPOSED INDUSTRIAL
AREAS AND EXISTING BUSINESS AREA

- EXISTING HIGHWAYS
- - - PROPOSED HIGHWAYS
- ▨ EXISTING INDUSTRIAL AREAS
- ▨ PROPOSED INDUSTRIAL AREA
- ▨ EXISTING BUSINESS AREA
- ▨ EXISTING RAILWAYS PROPOSED
FOR THROUGH TRAFFIC
- ▨ PROPOSED RAILWAY CONNECTIONS
- ▨ RAILWAYS RETAINED FOR LOCAL FREIGHT
- ▨ EXISTING INTERURBAN RAILWAYS
- ▨ EXISTING STREET RAILWAYS

SCALE 0 1000 2000 3000 4000 5000 FEET



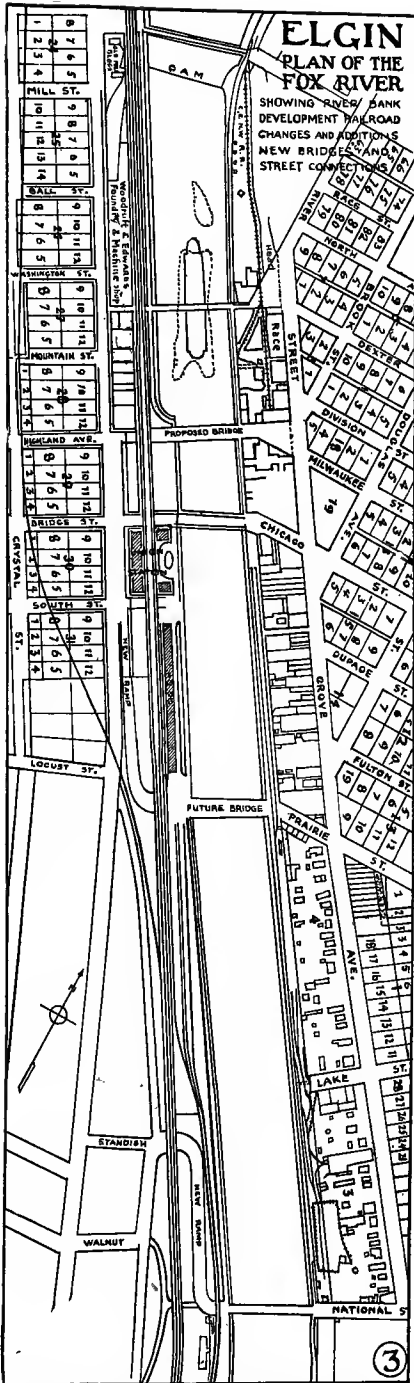
ELGIN ILLINOIS

PLAN PREPARED FOR THE
ELGIN COMMERCIAL CLUB
BY E. H. BENNETT CHICAGO
CONSULTANT ON CITY PLAN JUNE 1916

APPROVED AUG 25 1916
Wm. F. H. H.

1

Plan showing highways, railroads and industrial areas existing and proposed. The dotted green line encircling the city incloses an area of 10,000 acres which is the approximate space required to house 65,000 people.



Plan of the Fox River from National Street to Kimball Street. Also proposed Union Station at Chicago Street.

factory sites from the housing areas should be considered as essential. The river bank should be controlled by the city and a parked street developed along the water front south from the intersection of the Bluff City Boulevard and Riverside Avenue extension. Land on both sides of each railroad might be used for industry. A wide road should be laid out parallel to the C. M. & St. P. tracks, but far enough north to admit of factory sites along the railroad. With these dividing lines and boundaries established, the areas north should be platted to the best advantage for housing and the areas south laid out with proper circulation, switch tracks, classification yards and factory sites. The boundary highways along the west and north should be amply parked. The planning east and south should admit of unlimited industrial expansion. Comparatively even topography, excellent railway facilities, nearness to the industrial population of Elgin, and existing transit service between factories and homes are some of the advantages of the recommended site.

The area of the site that will be occupied depends upon the extent of growth and the type of manufacturing, but it may reach 300 acres.

The arrangement of railroad sidings and switch tracks, work roads, size of factory sites, and general circulation within this area is of prime importance and the requirements of the various industries must be provided.

THE RAILWAY PROBLEM.

The railroad rights-of-way are so located that their economic operation is not possible. The city street traffic is endangered and circulation hampered by many grade crossings. A solution of the problem must offer a remedy to both of these difficulties.

If the railroads could be laid out anew with the interests of both the

city and railways considered it is possible that the C. & N. W. and the C. M. & St. P. would occupy common or adjacent rights-of-way along or near the west side of the river. The location would be such that grade crossings with the city streets would be avoided. The excessive grade that now exists on the C. M. & St. P. Ry. would be eliminated. The Fox River Valley branch of the Northwestern, instead of branching at a point near the city limits at the south and cutting through the business section, would continue on the west side to a point near the north city limits. There would be one passenger station instead of three, and there would be union freight terminal facilities.

It is the purpose of this plan to present a rearrangement of railway lines which will approach and perhaps make ultimately possible the above described condition without depriving established industries of their existing railway facilities and without a prohibitive cost of reconstruction. An essential feature of the plan is the routing of all through trains, both freight and passenger, through the city on the west side where all grade crossings will be eliminated. Tracks remaining at grade will be used only as switching connections to established industry and will be operated only within certain hours and ultimately by electric power.

With the rearrangement presented by the plan, it is proposed to form a unified operation or parallel rights-of-way for the railroads on the west side. All through trains, both passenger and freight, will then be operated over this west side system.

In order to obtain the best alignment and grades, there is a partial retention of both the existing lines, of the C. & N. W. and the C. M. & St. P. The portions of the existing lines not occupied by the unified route are to be used for switching local freight.



View of the Davis Street, Evanston, Ill., depot on the elevated right-of-way of the C. & N. W. R. R.

Photograph reproduced by courtesy of D. H. Burnham, Jr.

THE RECOMMENDATIONS ARE:

(a) TO ABANDON THE C. & N. W. LINE ON THE EAST SIDE BETWEEN BLUFF CITY BOULEVARD AND SLADE AVENUE FOR THROUGH TRAFFIC, leaving it for local switchings only.

(b) TO ABANDON THE C. & N. W. TRACKS ON THE WEST SIDE NORTH OF LOCUST STREET FOR THROUGH TRAFFIC, leaving it for switching for existing industries.

(c) TO ABANDON THE C. M. & ST. P. LINE BETWEEN SECOND STREET AND LOCUST STREET FOR THROUGH TRAFFIC and to use the existing tracks for local freight and switching.

(d) TO ESTABLISH A CLASSIFICATION AND CLEARING YARD SOUTH OF ELGIN AT THE JUNCTION BETWEEN THE C. & N. W. AND C. M. & ST. P. LINES.

(e) TO UNITE THE PARALLEL LINES JUST NORTH OF THE BRIDGES ON THE WEST SIDE CARRYING BOTH ALONG THE C. & N. W. RIGHT-OF-WAY AT ITS PRESENT GRADE TO A POINT NEAR LOCUST STREET AND STATE STREET; from this point north to extend the lines, now becoming elevated, along the right-of-way of the C. M. & St. P. to Wing Street; from this point north to continue the C. M. & St. P. along its own right-of-way, the C. & N. W. continuing along a line parallel to the C. M. & St. P. road and finally joining its present line by means of a new connection. The C. & N. W. will also make a connection north from Wing Street to the east side branch crossing the river at a point near Slade Avenue.

(f) TO PROVIDE A MAIN UNION STATION NEAR CHICAGO STREET ON THE WEST SIDE.

The heavy grades north of Lawrence Avenue on the C. M. & St. P. lines through Elgin will be reduced from 1% to about .5% by elevating the tracks. The proposed C. & N. W. connection north from Wing Street to its Galena Division will rise at a grade of about .63%. The recommended C. & N. W. connection north from a point near Lawrence Avenue crossing the river to the Fox River branch will descend at a maximum grade of about .6%. All grade crossings on the through lines will be eliminated. At Walnut Street this is accomplished by extending the roadway north and crossing the tracks in a subway. At all other points north to and including Lawrence Avenue track elevation offers the solution. At State Street where the new C. & N. W. connection to the Galena Division is proposed, a subway for the street is possible—it being necessary to lower the street at this point.

If the railroads should operate on their own tracks along the proposed unified right-of-way the C. & N. W. would cross the C. M. & St. P. for its Fox River branch at a point near Lawrence Avenue instead of south of the city as at present.

The cost of the alterations required to complete this change of operation, construction of additional tracks, track elevation, bridges, and subways is roughly estimated at 2,000,000.

The city of Elgin should execute that part of the work incident to erecting subways and overhead roadway crossings.

The chief advantages of the plan are:



View of Chicago Street, Elgin, looking east from the bridge across the Fox River.

A general uniformity of height of buildings as here shown should be maintained in the downtown district. This question will require a special study in the future.

Elimination of grade crossings for through trains.

Good railway alignment.

Elimination of the excessive grade of the C. M. & St. P.

A union passenger station.

Union freight house facilities.

Retention of all the existing railway facilities.

The bridge proposed for the C. & N. W. Fox River connection north might be combined for both railway and roadway.

The city street circulation will suffer little interruption by the routing of lines recommended with the switching limited to certain hours and with the possibility of electrical operation. In order to eliminate the unsightly appearance

of grade crossings it would be reasonable to construct buildings over the right-of-way in the east side business section forming arched openings along the building line of the street.

Arterial Thoroughfares:

The problem of first importance is that involving the laying out of a system of arteries. Existing streets that naturally form part of this system on account of their width, direction, grade, position, and continuity are logically the framework for the future system of main highways. These, where they radiate from the city center, should be extended and supplemented. Arteries must provide access from one part of the city to any other part with reasonable directness. For all outlying areas the scheme submitted is tentative. The laying out of arteries and the platting of area surrounded by arteries should follow as orderly a scheme of development as property lines will permit, and in all plans topographical conditions should be respected.

The idea of mapping out an arterial system should be carried still further. Approximate locations of playgrounds, schools, and other public utilities should be borne in mind, and spaces for these should be acquired at the time when the owner is contemplating subdividing outlying areas in preference to taking over lots which may not be the right size or in the proper location; after the owner has subdivided and sold a part of his property.

A COMPREHENSIVE SYSTEM OF SANITARY AND STORM WATER SEWERAGE SHOULD BE PLANNED IN CONNECTION WITH THE ARTERIAL SYSTEM. The relation between natural waterways and watersheds and the position of sewers and disposal stations makes necessary the topographical survey. The location of these utilities will affect a street system for outlying areas. The position of settling basins (3 or more acres) and sewage disposal plants, if any (50 or more acres) will have important bearing on residence areas and parks.

The recommendations for future streets or at least many of them cannot be considered as final as to location before this sanitation and storm-water study has been completed, without the danger of adding to the cost of drainage if it is found that it does not harmonize with the street plan.

A complete system for grading the existing streets with a view to reducing heavy grades should be worked out by the City Engineer following the principles outlined. Curb elevations should be established providing for storm-water disposal. The scheme should include radical changes in present street grades where necessary. Such conditions of curb heights as exist along the east side of Grove Avenue south of Chicago Street and such street levels as are found on Crystal Avenue should be remedied.

In fixing widths of highways to accommodate the traffic that will be developed in the future, it is necessary to exceed the needs of the present. Improvements should be made so as to admit of expansion of roadways without disturbing trees and walks. For the present, roadways of the main arteries should be:

36' without car tracks,

54' with double car tracks for combined traffic,

42' with single car line.

Sidewalks along arteries in business districts should be not less than 12' wide. In residence districts the space should be wider but parked, with paved walk of 6' to 8' in width. Generally sidewalks in residence areas should be set well back from the curb.

In laying out future arteries the blocks should be long—600' or longer—in order that interruptions to traffic by a cross movement may not be too frequent. And it is not objectionable to offset the minor cross streets. Indeed this is one way of offering an interruption to cross traffic as well as making it desirable to use the artery in preference to a minor street.

The Street System.

The early development of the street system was the result of adding to the platted areas, from time to time, small parcels of land so divided as to provide building lots. Here and there an old road lying not in the general direction of the subdivisional streets was incorporated into the plan. All streets had the same function. As the city spread over a large area some streets came to be used as main arteries while others became neighborhood or minor streets. If, instead of this growth, a scheme of developing certain streets a reasonable distance apart, together with diagonals as arteries, and all others as minor streets had been carried out, each thoroughfare would have taken on a character determined by its use; and there is a saving to the city in paving and added comfort to the citizens.

The streets should be classified as to use. A network of thoroughfares spaced generally about one-half mile apart belongs to a class which are used as the main lines of communication or arteries. An artery gathers each unit of traffic near its starting point and carries it to its destination or to a minor street near its destination. The arteries, where the existing system of streets make for such a plan, may be developed in pairs; one to carry the car lines and along which business might extend, and the other parallel to it made

suitable for vehicular traffic. It is quite reasonable to vary this arrangement even in the length of a particular line of communication: For a part of its length it can consist of two streets of moderate width. For a part of its length it may be one street with ample provision for street-car service and vehicular traffic. For illustration see the general plan.

The streets lying between or surrounded by arteries should be arranged so as to best serve as means of access to the residence areas. The roadways should be narrow and the walks placed to avoid existing trees and to admit of planting new trees in such a manner as to shelter the walks and roadway. An attempt should be made to give the whole a comely appearance.

Minor Streets.

All subdivisions for future record should be made to respect the arterial system and the minor streets should be planned to suit the topography in order that their maintenance would not be a future burden to the community, and in order also that the building lands might be put to their greatest usefulness both as to depth of lots and elevation.

All streets not included under the head of arteries or parkways should be developed without regard to continuity. They should follow contours and be so located as to be below rather than above the level of the lots which they serve. Where minor streets already exist, and in the future platted areas, roadways need not be wider than 21' in other than exceptional cases. Depth of lots should be carefully schemed for new areas. Radius of the curb at corners should be such that vehicles may conveniently pass at the turns. Where intersecting streets are narrow the radius should be large. In Elgin there are many places with lots that are too deep, besides lying lower than surrounding streets. These are sure to be poorly developed themselves and to be a menace to the finer improvement of adjoining areas. An example of this condition is the low block bounded by Ann, Center, Cherry, Prospect, and Seneca Streets and Dundee Avenue. It would be a financial advantage to the owners and to the community to re-divide some of these properties, opening new streets and relocating others in areas having a condition similar to the one mentioned. There are examples of lots 300' deep. Low class housing development in alleys is sure to result from such excessive depths.

Paving.

Kind and volume of traffic should be studied to properly determine the kind of paving. The minor streets might be paved with macadam—oiled; or any smooth, quiet paving, the cost of which the community can afford; general traffic arteries with asphaltum on concrete foundation; heavy trucking streets with a material designed to stand hard usage; probably creosoted wood blocks where traffic is unusually heavy and brick elsewhere; and the parkways with one of the many asphaltum composition pavements.

The plan submitted shows a system of highways; both in the built-up city and in outlying unplatted areas. The location of the outlying arteries is not rigid. Changes may be found necessary when a complete contour map has been prepared. The outlying minor streets are merely suggestions subject to changes that might be caused by prohibitive grades and position of property

lines. Arteries should be 85' wide, minor streets as narrow as 40'. In all cases houses should be set back from the property line so as to provide adequate space for trees and parking.

Specific Recommendations.

In the following summary of improvements, where widenings are recommended, this may be accomplished by establishing a new street line and setting only new buildings back, thus reducing the cost of the improvement to the price paid for the land and entirely eliminating other damages.

IT IS RECOMMENDED THAT A NEW BUILDING LINE BE ESTABLISHED ON THE DOWN TOWN STREETS CARRYING CAR LINES, AND THAT ALL NEW BUILDINGS BE ERECTED SO AS TO CONFORM TO THE ESTABLISHED LINE. THE NEW BUILDING LINE SHOULD BE SO PLACED AS TO ADMIT OF A 54' ROADWAY AND TWO 12' SIDEWALKS. THIS WIDENING MUST BE ACCOMPLISHED IN ORDER THAT DOUBLE TRACKING OF ALL CAR LINES IN THE BUSINESS DISTRICT CAN BE CARRIED OUT. THE NEW BUILDING LINES ARE RECOMMENDED FOR:

GROVE AVENUE BETWEEN FOUNTAIN SQUARE AND NATIONAL STREET.

EAST CHICAGO STREET BETWEEN FOUNTAIN SQUARE AND CENTER STREET.

DOUGLAS AVENUE BETWEEN FOUNTAIN SQUARE AND LOVELL STREET.

NORTH STATE STREET BETWEEN CHICAGO STREET AND WING STREET.

HIGHLAND AVENUE —Milwaukee Street Connection.

It is recommended that Highland Avenue be extended to the river and connected by means of a new bridge with Milwaukee Street at its intersection with River Street. When the bridge approach is created at the east end, Milwaukee Street, Brook Street, and River Street will lead directly to this plaza. The new bridge should be of the concrete arch type. The roadway should be 36' wide if space for car tracks is not required.

Prairie Street Improvement.

In conjunction with the betterment of Riverside Avenue and its connection with Chicago Street, it is suggested that a bridge be placed at Prairie Street crossing to the low level street which parallels State Street and leads to the station. With this improvement the freight yards ought to stop south of the bridge and have easy access to its west approach. If connection to the high level at this point is found to be necessary a ramp passing under State Street and along the line of the Northwestern tracks to South Street could be developed. A low level connection in any event is offered to State Street northward. The west end of this bridge would also connect with a proposed drive or walk along the water front. The chief function of the bridge would be to

provide a way for heavy teaming to all business districts on the east side as well as to a large part of the industrial areas on the east side which are not served by rail connections.

CRYSTAL STREET EXTENSION: The extension of Crystal Street south to Billings Street, a further extension to Wilbur Street and to the Elgin State Hospital grounds is recommended. The regrading of a portion of Crystal Street is also recommended. The street has the possibility of becoming an excellent boulevard extending through the west side. That part of



A well-planned residence street where the parking space has been sacrificed for roadway. Elgin has some examples of roadways that are unnecessarily wide.

Crystal Street paralleled by the C. & N. W. R. R. should be widened and entirely regraded so as to be at the elevation of the railroad. The track (recommended as a switch track for the future) should be parked, and a narrow roadway laid along the east side to serve the property on that side of the street. In connection with this improvement much charm would be added by closing Mountain Street, Ball Street and Mill Street to traffic and parking the center, leaving only a walk at each side. The main roadway between Highland Avenue and Lawrence Avenue should be 27' wide; elsewhere 36' wide. Certain extremely low lots at either side of Crystal Street might to advantage be leveled and converted into neighborhood playgrounds.

BROOK STREET EXTENSION: It is recommended that Brook Street be developed as a boulevard, and extended north to the proposed roadway paralleling the C. & N. W. R. R. The roadway should be 36' wide and the parking space widened to 25' on each side with an additional 10' set back of buildings.

PROSPECT BOULEVARD—GENEVA STREET: In order that circulation from the north may be complete, to provide proper access to the

civic group, and to make a boulevard connection from the proposed Franklin Boulevard to Dupage Street it is recommended that a connecting street from Prospect Boulevard to Geneva Street be made. This street should have a roadway width of 36' and a property set back to allow for a parked space about 20' wide on each side.

CHANNING STREET—BELLEVUE AVENUE CONNECTION: This connection (shown on the street plan) is not fixed as to exact location but should be carried through generally as shown. Its object is to connect that area tributary to St. Charles Street and National Street with the north part of Elgin.

DUPAGE STREET—EASTVIEW STREET CONNECTION: In order to provide a street of adequate width that will supplement Chicago Street, a street carrying car service, it is recommended that DuPage Street east from Villa Street be widened and extended east to Eastview Street, the latter also being widened and properly connected with Oakwood Boulevard at Chicago Street. This street should be developed as a boulevard with 36' roadway and at least 25' parked spaces in addition to a set-back building line. With the ultimate acquisition of Elgin Cemetery on Channing Street, much interest and value will be added to this parkway. It is not intended that the new connection be located exactly as shown, but that the local conditions be studied.

FRANKLIN BOULEVARD WIDENING: It is recommended that Franklin Boulevard be widened and developed from Lord's Park west to Dundee Avenue and graded near Dundee Avenue. This street should have a 36' roadway and wide parked spaces, or possibly a center parked space and narrow roadways.

LAWRENCE AVENUE EXTENSION: It is recommended that Lawrence Avenue be extended westward to Highland Avenue and properly graded and developed for its whole length as a fitting line of communication between the bridge and the west side.

STATE STREET: State Street being a main highway to the north and to the south, it is recommended that the street be developed for its entire length. This work includes regrading in many places, particularly northward near Wing Park where it should be made to pass under the proposed C. & N. W. R. R. connection. At this point a fine approach to Wing Park could be made.

WALNUT AVENUE: The proposed railroad development includes a separation of grades and the re-location of the Walnut Avenue approach to the National Street bridge. It is proposed that a subway be built with long ramps as shown on the plan, thus reducing the grades and providing part of a connection northward west of the railroad to State Street.

HENDEE STREET: It is recommended, in conjunction with the Walnut Avenue improvement and the railroad development, that a new street be opened extending south from Hendee Street at its intersection with Harding

Street to Souster Avenue; the whole including Hendee Street north from Harding Street being properly graded and parked.

SOUSTER AVENUE: It is recommended that Souster Avenue be opened to a point near the river front where it will connect with a proposed drive along the west bank. With Bluff City Boulevard extended to the east bank of the river and connected with the Riverside Avenue extension a bridge should be built from this intersection across the river to the proposed river drive. An industrial development at the south of Elgin will make this connection of great service. Provision ought to be made for a street car line extension from the west side. Separation of grades of highways from railroad is possible.

EDISON AVENUE EXTENSION: It is recommended that Edison Avenue be extended south along the Elgin State Hospital western boundary.

MCLEAN AVENUE EXTENSION: That McLean Avenue be extended northward to Wing Park and southward through the State Hospital grounds is recommended; to be laid out as a boulevard. Additional width and well-developed intersections at each end of that part of the street which is the east line of the motor course are suggested. The extensions would of course be executed at a time when these outlying areas are subdivided.

WILCOX AVENUE, CRIGHTON AVENUE, McCLURE AVENUE: It is recommended that this be made a continuous thoroughfare by widening, grading, enlarging the link between Chicago Street and Walnut Avenue, improving intersections at Chicago Street, Highland Avenue and Wing Streets and providing a fitting approach to Wing Park.

JEWETT STREET EXTENSION: It is recommended that Jewett Street be developed and extended south. •

WING STREET: This street should be made of sufficient width to carry car lines as well as through vehicle traffic. Wing Street is a principal highway that is not paralleled by a street which could be used in conjunction with it.

SOUTH STREET: It is recommended that this street be improved in the same manner as is proposed for Wing Street.

CONGDON AVENUE: This street connects with an exterior highway and should be extended and developed as an artery.

LOVELL STREET—COLUMBIA AVENUE: It is recommended that these streets be widened and graded, and extended beyond the city limits when the expansion to the east warrants.

KIMBALL STREET: Kimball Street is the continuation of Franklin Boulevard and its improvement is recommended. A bridge to replace the old wood structure making the connection with Lawrence Avenue should be re-located and constructed of the concrete arch type.

CHICAGO STREET: It is proposed that Chicago Street be supplemented by DuPage Street as far east as Oakwood Boulevard, but beyond this

point the cars should be extended along a parallel street. Chicago Street being an important highway should be developed as a fine thoroughfare for vehicular traffic only. Chicago Street on the west side ought to be graded and improved as an important thoroughfare, to supplement the Highland Avenue-Larkin Avenue artery.

NATIONAL STREET: It is recommended that this street be made the subject of special study. Its intersections with Villa Street, Grove Avenue and the Riverside Avenue extension, as well as the plaza at the east end of the bridge, its relation to the school playground, the watch factory, the car line and the A. E. & C. grade crossing are problems of importance.

LIBERTY STREET: It is recommended that this artery be properly graded, paved with a serviceable material and developed for its entire length with a 36' roadway and well-designed parked spaces.

DUNDEE AVENUE: It will be necessary to widen the roadway of Dundee Avenue in the future and with this in view immediate provisions for a building line set back are recommended. With a two track car line the roadway should be 52' wide.

VILLA STREET: It is recommended that Villa Street be improved as a fine diagonal approach to the city from an important exterior highway. The roadway need not be wider than 36', but it is strongly urged that the planting, walks and intersections be developed in the finest way. Grades should be improved where it is possible to improve them.

Outlying Improvements.

The many outlying and minor improvements should—as indeed is the case with some of the more important recommendations—be studied in the light of further information that will be available when topographical surveys are made.

The River and River Front Improvements.

It is recommended that Riverside Avenue be connected to Chicago Street. (See drawing No. 2.) This connection will require a regrading from a point about midway between Prairie Street and Chicago Street. That the street then be extended south to South Elgin, passing under the tracks near Bluff City Boulevard on the plan is also recommended. The A. E. & C. Electric line must abandon its exposed third rail operation south to the city limits to make this improvement feasible.

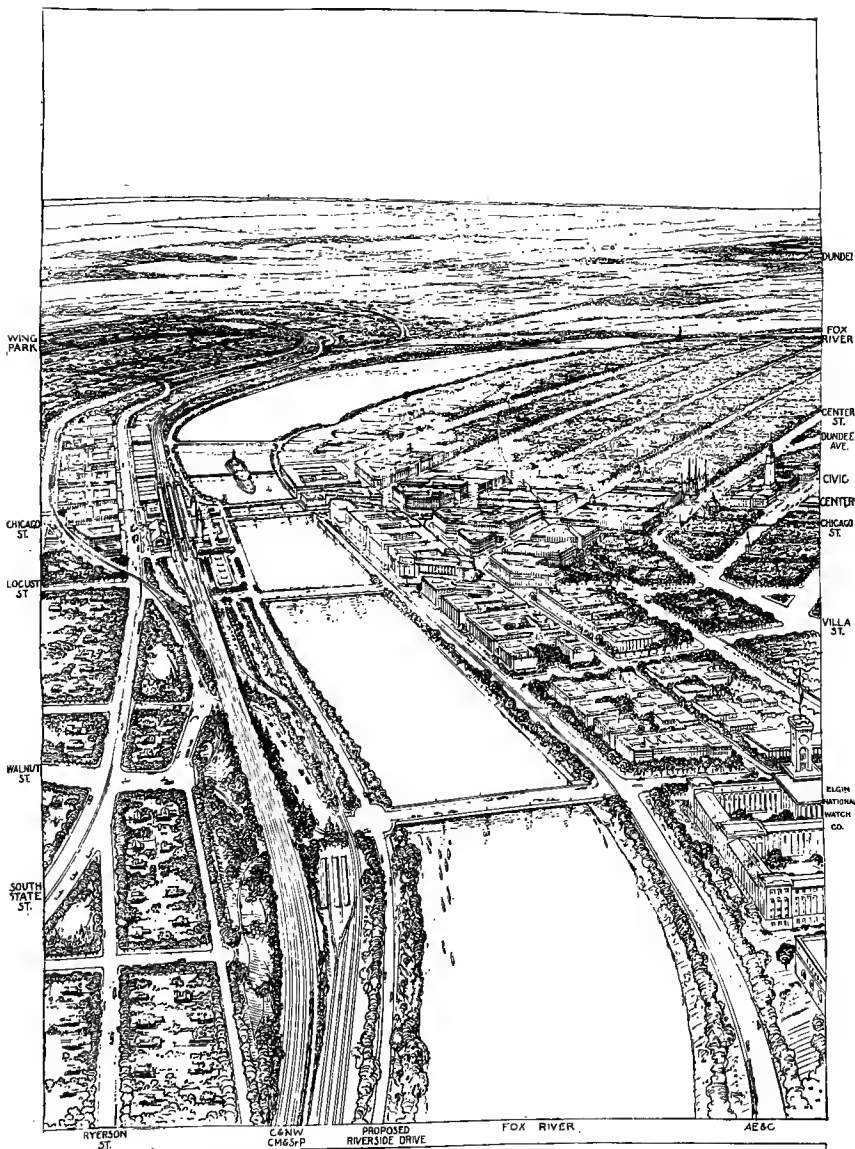
North from Chicago Street on the east bank a walk should be opened with possibly a drive north of Kimball Street to Lovell Street, while from Lovell Street north it is recommended that the space between the C. & N. W. tracks and the river, including the waterworks property, be acquired as a park and along the top of the ridge a parkway built east and south of the tracks, connecting with highways beyond the city limits. For a part of its length Alexander Avenue would be used as the parkway. Along the west bank of the river a highway is proposed through the State Hospital grounds to Souster Avenue. North from Souster Avenue a strip along the water-front should

be acquired for park purposes with a walk and a narrow drive as far north as Chicago Street. From Chicago Street to the Kimball Street bridge a walk is proposed and north from the bridge there should be provided a parkway. It is recommended that a bridge be built, when future extension makes the improvement necessary, at the Brook Street extension, thus connecting the area north of Elgin with the east side. Walls should be built along both banks of the river between Chicago Street and Kimball Street bridges. The banks at other places, except possibly for a block south from Chicago Street can be improved with an orderly embankment. Much of the work on the west side may be accomplished in conjunction with the railroad development. Title to part of the lands where river encroachments are evident may be given to private owners by the city in exchange for river-front rights—to be used for public purposes. Extensive improvements of the kind recommended for Elgin are being made along the Cedar River at Cedar Rapids, Iowa; the wall, lower quay, bridges and high level walks are now in course of construction. Legal difficulties are being overcome at Cedar Rapids, and Elgin may well profit by the example.

In a "Report of Survey and Proposed Improvement of the Fox River" compiled by the State of Illinois Rivers and Lakes Commission (1914-15) a scheme for making the river navigable for small boats is recommended. An improvement of this nature would be valuable, in that cheap transportation of produce would be offered. It is estimated that there are in operation in the Fox River Lake region and on the Fox River 5,000 to 6,000 boats. The beauty of the Fox River Valley is an asset to the community and by opening the river for pleasure boat navigation, much would be accomplished in making the region popular for the summer visitor.

At the present time there is only one locked dam on the river.* This is at McHenry. The Rivers and Lakes Commission has estimated that locks can be constructed at \$5,000 each and that dredging a channel 20' wide and 3' deep between South Elgin and Algonquin would cost \$10,200, making a total cost of opening the river for navigation north of South Elgin to the lake region \$25,200.

Little need be written here regarding power developments. A comprehensive study of this subject has been published by the Illinois State Rivers & Lakes Commission. It is said that "water power was formerly utilized more extensively in proportion to the population than at present." The scheme of water-front development should be planned so as to encourage the installation of better equipment for water-power operation. At Elgin there is one dam with an average working head of 7 feet. The average horse power developed, operating 19 plants, is 842 and the chief use is in the manufacture of dairy products. (Annual production \$750,000.) There are auxiliary plants to the capacity of 485 h. p. The water power is used for eight months each year. At South Elgin another dam is located (7' head) developing 351 h. p. used in the manufacture of flour and crude drugs (\$100,000 per annum). The nearest dam north of Elgin is at Carpentersville, developing 427 h. p. and used in the manufacture of iron and steel articles to the extent of \$2,000,000 per year in seven months of operation.



ELGIN ILLINOIS

JUNE 1916

PLAN PREPARED
FOR THE ELGIN
COMMERCIAL CLUB

GENERAL VIEW OF PROPOSED DEVELOPMENT OF THE
RIVER BANKS BUSINESS SECTION AND CIVIC CENTER

E.H. BENNETT
CONSULTANT
ON CITY PLAN

4

The water power developed in Elgin is about 14% of the total power used, while the value of production in water-power establishments is 7% of the total for the city.

Conclusions reached by the Rivers & Lakes Commission are:

That the Fox River is one of the best water-power sites in the State, and capable of extensive development.

That the safe limit for the natural dilution of raw sewage has been reached, and future sewer developments should provide artificial purification of the sewage before it is discharged into this river. That the Federal and State



Views of the Fox River in the vicinity of Elgin. These views will serve to show that there is a great deal of natural beauty which should be preserved by the public authorities.

jurisdiction over navigable waters should be clearly defined by a ruling from the Supreme Court of the United States, so that more concerted action may be taken to prevent infringement of the public rights.

That numerous obstructions and encroachments have occurred along the Fox River, and are a menace to public safety in periods of high water; that many private interests have occupied ground belonging to the public, and that the efforts of the Rivers and Lakes Commission to remove the obstructions and secure the public title in these lands is an important work and deserving of public help and recognition.

That the Fox River can be made navigable for small boats for the majority of its length at a reasonable cost, and that such an improvement would be of great value to those residing permanently within the valley, and to the large population who use the district as a summer recreation ground.

NOTE.—The estimated cost of dredging and locks for the river development north of South Elgin is:

For dam at	Dredging.	Lock.
Algonquin to Carpentersville	\$ 2,200	\$ 5,000
Carpentersville to Elgin	4,400	5,000
Elgin to South Elgin	3,600	5,000
	<hr/>	<hr/>
Total cost	\$10,200	\$15,000
		<hr/>
		\$25,200



Grenoble, France. View showing the general treatment of the river which is similar in its general scale and character to that of the Fox River at Elgin. It serves to illustrate the possibilities of the latter.

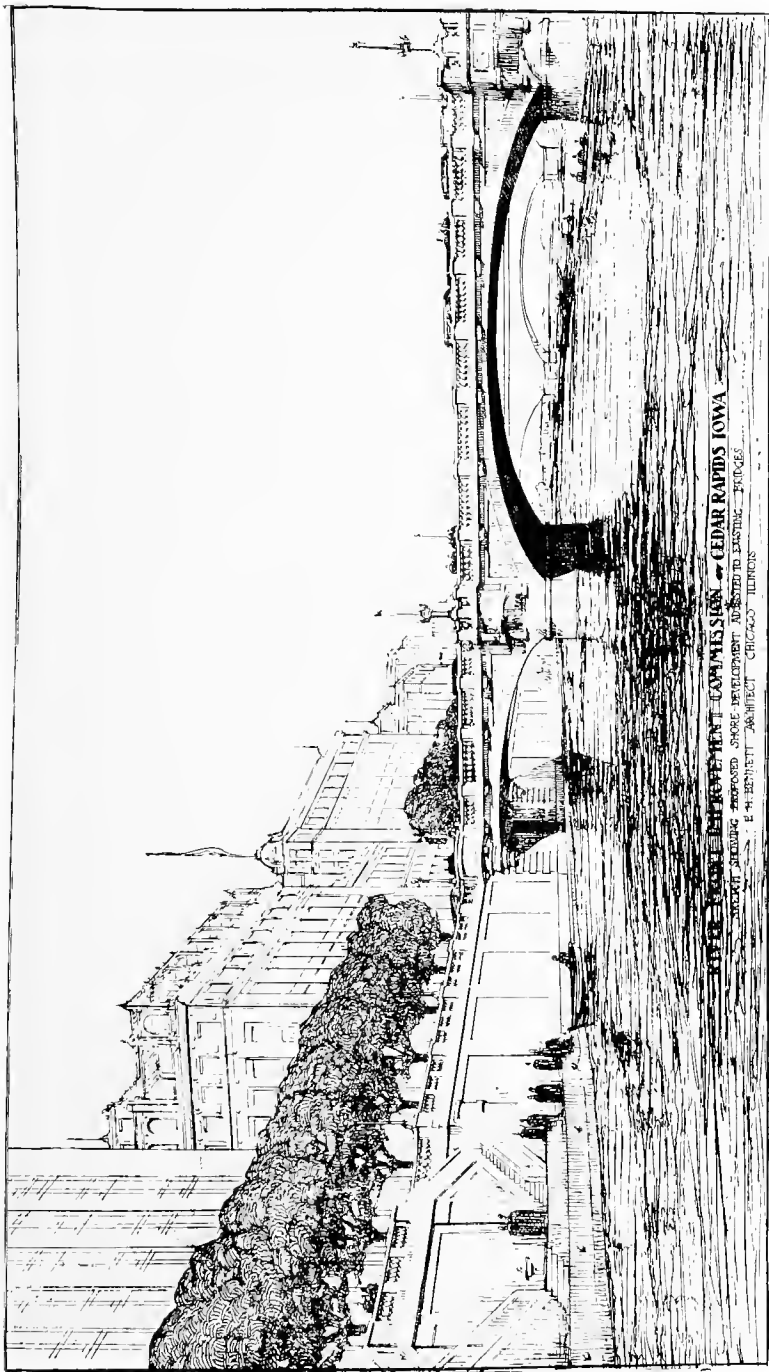


Salzburg, Austria. View of the river Salzach showing its well-developed embankments.

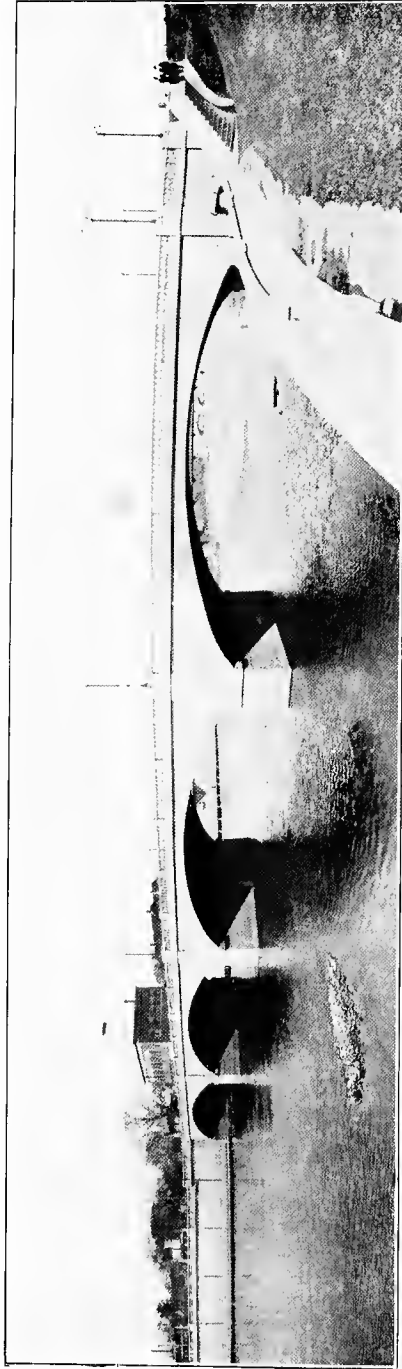
Reproduced by Courtesy of Underwood & Underwood.



Florence, Italy. Showing the river Arno and its embankments. The distant tower serves to illustrate how the proposed civic center tower in Elgin would be the dominating architectural feature of the city.



The Cedar River, Cedar Rapids, Iowa, showing river-front developments now being executed. This work has been adjusted to the existing bridges.
 Courtesy of the River Front Improvement Commission.



The Cedar River, Cedar Rapids, Iowa, showing a portion of the work already carried out.

Courtesy of the River Front Improvement Commission.

Parks and Playgrounds.

Such areas as Wing Park and Lord's Park represent one type of park only. To-day there are many types of recreational facilities, each serving a definite purpose. These are school yards, playgrounds for small children, playfields for organized sports, neighborhood parks, large parks, and reservations. Parkways where they are developed of ample width and where only a small space is actually paved as a roadway are another type.

Where there is no intense housing congestion, the proper relation of area of playfields to the population which each serves is not a difficult problem to solve, but in all cases distance apart of playgrounds and athletic fields is a factor that does not vary materially.

SCHOOL PLAYGROUNDS serve as outdoor gymnasiums for organized work under school supervision. When schools are not in session and during recesses they may serve the general purpose of playgrounds for adolescent children. A school ground should be located at every school, except in the case of a large playfield located quite near the school. In this case the playfield would serve all purposes.

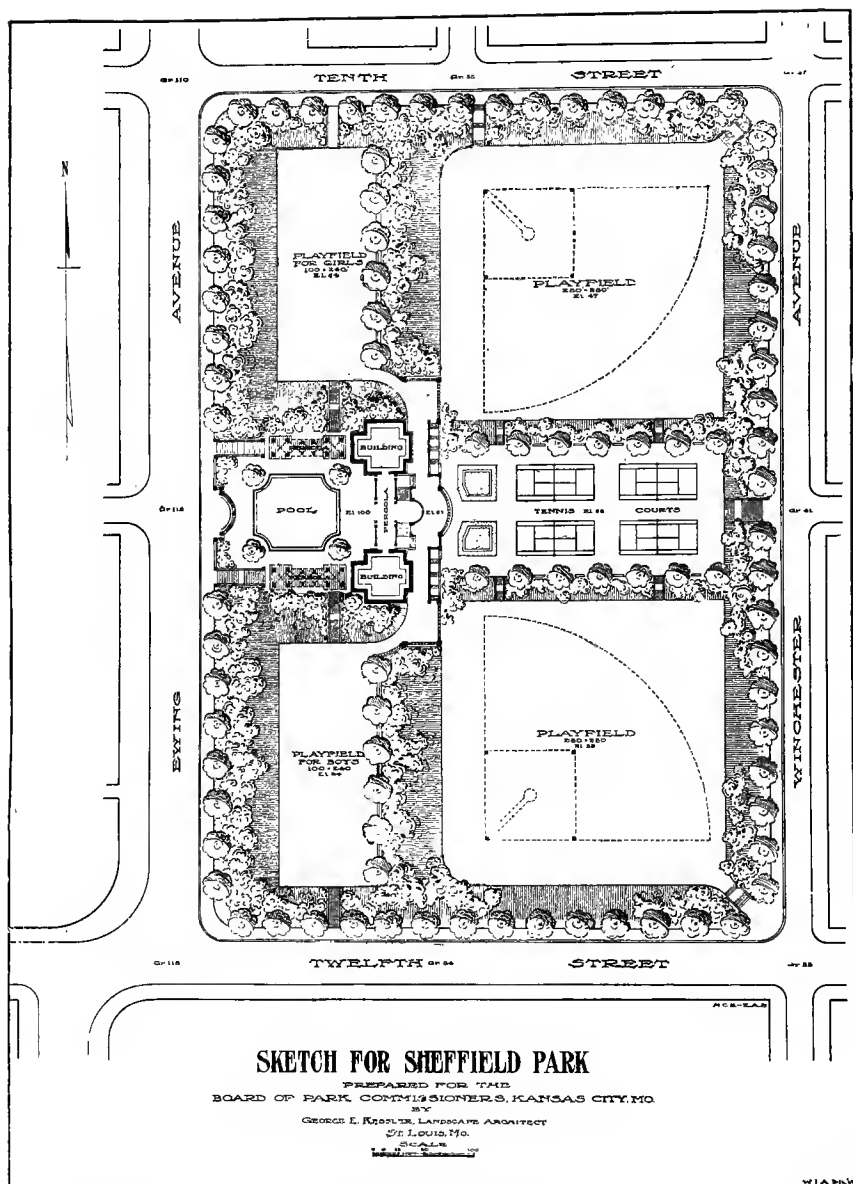
PLAYGROUNDS for small children present the most serious problem of all recreational facilities. An ideal condition is one wherein a playground as small as 50' square with a lawn and small amount of apparatus exists in every block, or almost within sight of the home, for the use of children under 12 years of age. These need have little relation to school buildings, and supervision should consist of frequent visits by District Supervisors. Probably in laying out new subdivisions a small square in the middle of each large block or in a small corner not available for building would be practical, and each could either be deeded to the city or become owned jointly by the block property holders. Its maintenance and supervision would in either case be the duty of the community.

PLAYFIELDS for baseball, football, tennis, squash, etc., should be located so that the walk to the playfield most distant would be about $\frac{1}{2}$ mile. The minimum area is $6\frac{1}{2}$ acres.

Where school grounds are large and located reasonably close together it is obviously unnecessary to have all these facilities in a playfield, but a community of an established size should have in the combined area of the various school grounds and playfields facilities sufficient for its needs. Probably the combined sizes of these school playgrounds within the radius of $\frac{1}{2}$ mile would be slightly larger than the area required if they were combined into one playground serving the same area.

IN ELGIN THERE IS NO PUBLIC SCHOOL GROUND LARGE ENOUGH TO SERVE THE PURPOSE OF A PLAYFIELD. ONE OF THESE HAS BEEN RECOMMENDED FOR EACH COMMUNITY IN A LOCALITY WHERE LAND VALUES ARE PROBABLY LOWEST AND WHERE IT WILL BEST SERVE THE INTERESTS OF THE NEIGHBORHOOD. THE STREET PLAN, DRAWING NO. 2, SHOWS THE LOCATION OF PLAYFIELDS.

Neighborhood parks are most valuable in densely built-up areas. They may be placed on lands that are not valuable for any other purpose—small



A playground plan introduced to show one of the many combinations of facilities that are possible on an eight-acre tract.

triangles—plazas at intersecting streets, very hilly areas, low tracts, etc. A few such areas are tentatively suggested particularly in outlying areas. With the proper development of Crystal Street there are many opportunities for interesting neighborhood parks.

Large parks such as Wing Park and Lord's Park are institutions that need

no supporting arguments in a brief report. Their worth is known. Areas of this kind should be added to so as to keep pace with population increase. Elgin has 238 acres of park or one acre to each 115 people. The city should maintain for each 100 people one acre of parks and playfields. **A NEW PARK IS RECOMMENDED AND SHOWN ON THE PLAN, TO BE LOCATED IN THE SOUTHWESTERN PART OF THE CITY.** It can be located here in the unbuilt section without disturbing houses that are already built. Its exact boundary should be the subject of future study. The park may extend across McLean Avenue to provide a golf course.

IMMEDIATE STEPS SHOULD BE TAKEN TO ACQUIRE THE ELGIN CEMETERY. The difficulties to be overcome are not great as compared with clearing built-up lands of similar area for recreation purposes.

There is an opportunity for developing all or a part of the Elgin State Hospital Grounds lying east of the Aurora road as a park, even though title to the property remains with the State. It is strongly urged that immediate investigation be made. The cost to the city would undoubtedly be low.

The proper development of recreational facilities in the large parks is of prime importance. The parks must be made to attract the people. A wise step in this direction would be the construction of swimming pools with concrete bottoms and curbs. At Wing Park particularly is offered an opportunity to build a modern pool.

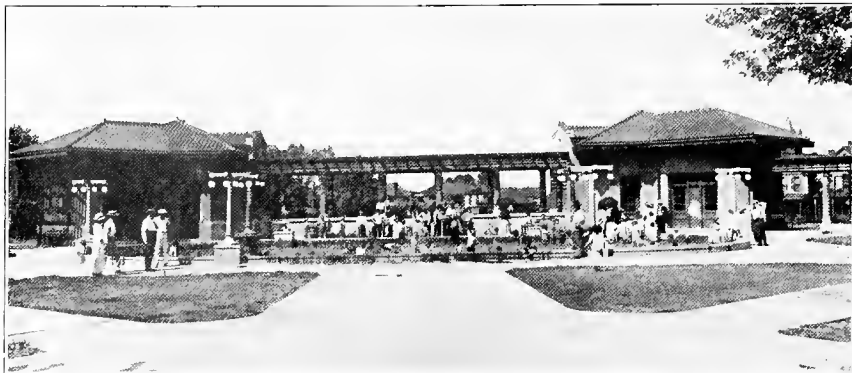
The parked areas along the river are discussed under "The River and River-front Improvements." It is important that the problems be studied at once in detail with a view to recovering for public use river front where encroachments are found. At other points proceedings should be begun to acquire title to water-front property. The island just north of Chicago Street might be razed and reduced in size, in connection with the dredging required to make the water course navigable. A study has been prepared showing the scheme suggested for this development.

Park and playground statistics are given with the supplementary data paragraph.

Boulevards and Parkways.

A complete system of boulevards and parkways is shown on the street plan. The streets within the built-up area which form links of the system have been discussed under their present names, and in connection with "The River and River Front Improvements."

That part of the system forming the east side of a wide circuit would extend north from Bluff City Boulevard through Lord's Park along the county line to an east and west connection with the proposed river drive northeast of the present city limits. The street north from the park is logically fixed along the county line. The extension south from the park might be made to follow either Sadler Avenue (not improved) or Willard Avenue already open. The link between Villa Street and Bluff City Boulevard admits of several solutions. One which could be easily realized is an extension along the creek (Willard Avenue). Another scheme having the advantage of lying more nearly in the direction of the movement south and west is also shown. If Willard Avenue is used, the triangular plot between Oakwood Boulevard and Villa Street



A playground development in Chicago.

should be acquired in order that a fitting connection could be made with the park. The connection through Sadler Avenue would require extensive re-grading where the new connection is shown between Chicago Street and Park Avenue.

Municipal Center.

Municipal buildings are built mainly for the purpose of transaction of public business, for the safe keeping of public records and for public assemblies. IT IS DESIRABLE, THEREFORE, THAT THEY BE LOCATED CONVENIENTLY FOR THE MAJORITY OF CITIZENS; ALONG THE MAIN THOROUGHFARES, BUT NOT NECESSARILY WITHIN THE BUSINESS SECTION. PREFERABLY THEY SHOULD BE ON OR NEAR THE FRINGE OF THE BUSINESS SECTION, SOMEWHAT RETIRED FROM ITS NOISE AND CONFUSION.

The time is at hand when a larger and a fireproof City Hall and other facilities will be required. Instead of rebuilding on the present site, this should be converted into business property at a profit to the city, allowing the unimpeded expansion of retail business along Chicago Street. A larger space, out of the direct line of business, but at the same time centrally located, can be purchased at perhaps less cost. The site should be large enough for future needs, including besides the municipal building, a public assembly and other requirements.

There are several such sites for a municipal center. THE PROPERTIES BETWEEN CHICAGO AND DIVISION STREETS, ALONG GENEVA STREET, AS INDICATED IN THE PLAN, IS THE LOGICAL SITE FOR THE MUNICIPAL CENTER SINCE IT IS CONVENIENTLY LOCATED NEAR THE RADIAL THOROUGHFARES. It offers rare architectural advantages, standing at the end of Milwaukee Street, the vista being closed with a tower of sufficient height and mass to dominate the city. It is a unique condition that a tower erected at this point would lie in the direct line of vision of most of the principal highways entering the city, so as to be visible from the surrounding country. It will be seen from the Dundee Road at its turn near the city limits; for a

long stretch of Villa Street, the main highway from Chicago; from South Street and from points in many other roads within and without the city.

The properties included in the Municipal Center are at the present time much depressed in value and can be purchased at reasonable cost or exchanged to good advantage.

The plan affords a flexible arrangement of buildings; it allows for their construction in sections as needs develop and as funds are available. In general it is proposed that the group include a city hall with a jail and fire station, a library and an auditorium. The two latter should be preferably on the east side of Geneva Street, opposite the city hall proper. In some cities the armory and drill-hall has been combined with the auditorium, an arrangement which would be suitable in Elgin.

Geneva Street should be widened so as to form a plaza on which the public buildings will face. This site is on the high ground forming the brow of the hill. It offers an unusual opportunity for the development of a group of public buildings which shall form the orderly expression of the highest civic ideals.



Brussels, Belgium. View of La Grand Place.

This view illustrates the suggestion made for the Elgin Civic Center in a broad general way, although the plaza here shown is larger than that proposed for Elgin.

Street Fixtures.

IT IS RECOMMENDED THAT UNIFORM SYSTEMS OF STREET LIGHTING BE PROVIDED. This would include simple cast-iron or concrete lamp standards placed about 120' apart on minor streets and larger standards of higher candle-power set closer together on arteries. In business streets the standards should be about 12 feet 6 inches to the source of light and in residence sections and parks 10 feet 6 inches, to avoid interference with the lower branches of trees. Street lighting should generally be combined with street name signs at intersecting streets. A good solution for the lighting problem is an electrolier to illuminate a sign on which is indicated the block number as well as the street name; a standard with a single opalescent globe having the metal sign through which the light shines. The standard may be iron or concrete. If concrete is used for the post the metal in connection with the lamp must be bronze and the street sign either bronze or enameled. Street names in curbs cannot properly be used to take the place of other street signs; they may, however, be used to supplement them. Trolley poles may serve also as light standards.

POLES AND OVERHEAD SERVICE WIRES are generally unsightly. As soon as possible they ought to be removed. It is recommended that steps be taken to provide for the ultimate removal of all service poles and overhead service and telephone wires; these should be installed in underground conduit, or cable system; the first step being made in the business section.

SHADE TREES should be planted along all streets that are not used strictly for business purposes. It is essential to the finer development of the city that existing shade trees be properly cared for and replaced where necessary. Where new trees are set a definite program, taking into account roadway widths, possible future widening of roadways or reducing certain existing roadways on minor streets, must be followed. THIS WORK SHOULD BE DONE UNDER THE DIRECTION OF A PARK BOARD, WITH EXPERT SUPERVISION.

BILLBOARD advertising is most unsightly and throws an unnecessary burden upon the community. Especially is this true of billboards which often interfere with the well-being of the neighborhood in which they are located. There are many precedents for regulating them. Billboards can be entirely excluded, or permitted only in certain places under strict regulation.

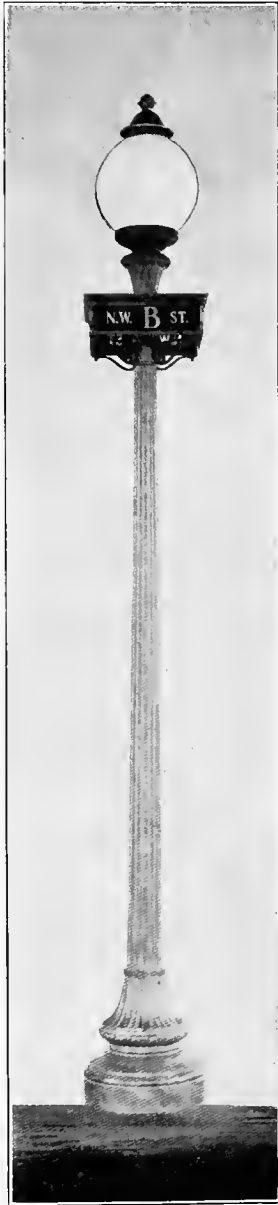
Street Cars.

The problems are: locating routes for extensions and scheming a re-routing plan which might be accomplished by adopting through or overlapping service. Good and cheap street car transportation, or its equivalent from the point of view of service, is one of the agents for combating the low-class multiple-family house. Well-operated street car service will tempt the people to seek homes at a considerable distance from work. Frequent 5c service, good roadbeds, well-cared-for equipment, lines so located that no areas will be further from the nearest line than $\frac{1}{2}$ mile, universal transfers and routing so arranged as to serve the majority effectively and comfortably are controlling factors in good street-car transportation.



The general plan, organization of streets, railroads, playgrounds, parks and parkways within the city limits.

EXTENSIONS: It is recommended that continuations of existing radial lines be carried as indicated on the street plan drawing No. 2. Generally these extensions are shown to lie in streets that are paralleled by thoroughfares which are to be used strictly for vehicular traffic.



Typical lamp standard suggested for the streets of Elgin.

In addition to the radial extensions it will be necessary in the near future to extend the South State Street line to the river along the north line of the Hospital grounds, crossing at a point nearly opposite Bluff City Boulevard extension. This connection should be borne in mind as one that will be required if the industrial area shown on drawing No. 2 is developed. A north and south line in Liberty Street (not shown on the drawings) will be required to serve the same purpose on the east side. This line may connect with the St. Charles Street line at or near May Street, or be continued south in Liberty Street, single tracked, and operated as one-way service in conjunction with the St. Charles Street line south from May Street. Closer investigation may show that this north and south line should be located in Channing Street, but this is not probable.

ROUTING: This subject is one of Elgin's most difficult transit problems. For the present the grade crossings must be taken into account where re-routing is contemplated. In all probability a system of routing, an improvement over the present terminal scheme at the square, can be found. Particularly is this true of the north and south line on the east side.

In favor of through routing may be considered:

- (a) reducing the number of transfers issued. Fraud is encouraged by the use of transfers at a central point where a dozen lines converge.

- (b) Probable relief to street congestion at the Square. The extent of the relief depends upon the plan adopted. If the lines coming into Fountain Square are double-tracked congestion will only be relieved by widening the roadways.

- (c) Greater comfort and better service for through passengers and no sacrifice of service and comfort for passengers to and from the Square.

Through routing has been given a trial. However, the turnouts probably are not located so as to facilitate through routing. For the present, if it is shown that grade crossing blockades disturb the schedules, north and south, through

routing on the east side only may be feasible. The through service now offered in the evening for factory employes could be tried in a modified way during the day. With lines into Fountain Square double-tracked as recommended, makeshift routing schemes will not have to be resorted to. It is a question only of time until volume of car traffic will demand such development, even though routing problems are not considered.

EITHER THROUGH ROUTING OR AN OVERLAPPING SERVICE PLAN IS RECOMMENDED. IN ORDER THAT ONE OF THESE SCHEMES OF OPERATION MAY BE CARRIED OUT WITH SCHEDULES TIMED SO THAT THERE WILL BE NO WAITING TIME AT THE SQUARE IT IS RECOMMENDED THAT DOUBLE TRACKS BE LAID ON:

GROVE AVENUE BETWEEN FOUNTAIN SQUARE AND NATIONAL STREET. CHICAGO STREET BETWEEN STATE STREET AND CENTER STREET. DOUGLAS AVENUE BETWEEN FOUNTAIN SQUARE AND LOVELL STREET. NORTH STATE STREET BETWEEN CHICAGO STREET AND LAWRENCE AVENUE, and probably on South State Street and Highland Avenue for a short distance. The Chicago Street bridge must be strengthened to carry the increased load.

Maintenance, Equipment, Etc.

The question of double tracking for the purpose of proper routing is discussed above. Single tracks where cars are operated in both directions cause delays at turnouts. This is particularly true where a grade crossing exists at some point on the line. It is thought that several of the Elgin lines should be double tracked for at least a part of their length, well beyond the business district.

When the work of extending Riverside Avenue south to the city limits is begun, unprotected third rail operation of the A. E. & C. interurban line must be abandoned and the tracks should be relocated as far south as the city limits. In fact the whole problem south of Chicago Street on the east river bank is linked with encroachment, terminal facilities, proper suburban car operation, and vehicular traffic possibilities on the proposed street along the river bank south of Prairie Street.

Steel trolley poles set in concrete should be considered by the company, particularly in the down-town district, and the possibility of combining street lighting standards with trolley poles should be carefully studied.

Faults in construction, maintenance and service should be corrected. Some of the track particularly where streets are unpaved, is in a poor state of repair. All should be laid on 8" of stone with the ties in concrete. All crossings should be of the flange-bearing type. Poorly ventilated cars have been observed; coal gases being particularly bad in the St. Charles Street line. **IT IS RECOMMENDED THAT AN ORDINANCE BE PASSED PROHIBITING THE LAYING OF "T" RAILS ON PUBLIC THOROUGHFARES.**

Trolley Freight Business.

Applied to Elgin the problem of freight service is an important one. The outlying factories make the local problem worth careful consideration. Package express business should be encouraged by the city on all lines. A regulation in Elgin prohibiting the loading of express cars in the city streets works a peculiar hardship to the business interests. The down-town streets are too congested, however, to allow such handling, but a solution that would be an improvement over teaming in the outlying districts lies in developing proper facilities on private property centrally located.

Mr. John P. Fox in "a study of the Reading (Pa.) street-car service," recommends that the handling of freight be tried and adds, "The present management has appeared favorably inclined from the beginning towards starting a trolley freight business, and it is hoped that the opportunity will not be long postponed to assist Reading men in their business and to serve the suburban communities which are without proper facilities."

Survey and Report.

It is not possible to offer definite recommendations for increasing capacities without data pertaining to the value of holdings, cost of operation, number of cars operated, and the fares collected, and such recommendations should be based on a special report on Traction. The companies operating cars in Elgin submit financial reports to the State Utilities Commission. These financial reports should be studied in connection with a report on Traction.

The public has a right to expect the company to make expenditures where necessary in rehabilitating the system and further to demand a close scrutiny of the company's accounts by the city officials to whom the railroad company is responsible. The percentage of the total operating revenue used for maintenance of way and structures should be studied by the city.

Mr. Fox in his reading report says in this connection: "Publicity in financial matters is the rule to-day from public service corporations and it is better in the end to have all the facts known, especially . . . where conditions may be better than rumor has made them out and where the truth is likely to win public support for the company instead of loss."

Supplementary Data

Land Subdivision.

If restrictions as to lot sizes and building regulations are applied, it would lead to densities as shown below. The figures include streets.

Single houses on the basis of 50 x 125' lots. Streets averaging 70'.

Houses per acre..... 5.2

People per acre.....20

Two family houses with lots 60 x 125' and streets averaging 70'.

People per acre.....33

Apartments and Tenements in 100' x 125' units, 3 stories high the capacity of such units being 18-4 room apartments—average 2½ people per apartment.

Buildings per acre..... 2.6

People per acre.....120

If the strictly housing areas are occupied to an average density of 10 people to the acre, built up and scattering areas included, and other occupancies increase correspondingly, land development with a population of 65,000 will compare with existing conditions as follows:

	Future	Existing
Housing	6500 acres	3158 acres
Business	75 acres	34 acres
Industry & R. R.....	400 acres	120 acres
Parks	650 acres	238 acres
Cemeteries	127 acres	127 acres
State Hospital	350 acres	404 acres
River Banks.....	250 acres	250 acres
	<hr/> 8352 acres	<hr/> 4331 acres

There are in Elgin:

27,400 people.

6,024 families.

5,383 dwellings.

Playgrounds.

A playground in its broadest sense should provide facilities for Kindergarten, sand gardens, gymnasium or physical training, athletics and athletic games, dancing, industrial work, aquatic activities, public gatherings.

Playgrounds depending upon uses and location might be classified as follows:

Outdoor playgrounds,
Roof playgrounds,
Evening recreation centers,
Swimming places.

One acre of school playground can accommodate 1,400 children with supervised play and proper equipment. Area of school playgrounds should be fixed by the school census.

The area of athletic fields serving zones of ½ mile radius should be determined by the ultimate population of the area.

Area of district ½ mile radius..... 500 acres

Population at 30 per acre.....15000

This being a population as great as any area of this size will be called upon to house in Elgin, the minimum field that will provide room for all the facilities required by a playfield should be taken. Six and one-half acres will provide room for baseball field, children's playground, women's and men's open air

gymnasium, gymnasium building, swimming pool, wading pool and field house. Where densities are higher, as is the case in large cities, playfields serving areas of the same size as above must be much larger than $6\frac{1}{2}$ acres in order to provide room for duplication of some of its facilities, particularly ball fields and other outdoor areas.

A recent Chicago report stated that delinquency decreased $28\frac{1}{2}\%$ within a radius of $\frac{1}{2}$ mile of the field after an athletic field had been provided, conditions remaining stable beyond that zone.

Population.

The plate on page 12 shows a curve of population increase and a curve of rate of population increase. As cities increase in population the average yearly rate of increase invariably decreases. The rate curve B is based on the tendency of average cities of the size and character of Elgin. The curve of population increase is laid out on the basis of the annual rate of increase (%) as plotted in curve B.

Conclusion.

In the preparation of the report the aim has been to prepare a comprehensive plan looking to the future and providing for the growth and development of the city. It is not the intention that work outlined should be undertaken at the present or even in the immediate future. The work must be progressive and accomplished according as occasion and the finances of the city will permit.

The findings of the plan and report cannot be taken as final in detail; the plan, however, is one in which the relative values of its elements have been weighed and after careful consideration have been recorded. It is hoped that it will serve to promote a consistent and fine development of the city.

Acknowledgment is made of the kind assistance given during the development of the plan by the following gentlemen: Mr. Morgan H. Brightman, City Engineer; Mr. W. F. Hunter, Commissioner of Accounts and Finances; Mr. Leroy K. Sherman, Commissioner, State of Illinois Rivers and Lakes Commission. Also of the services of the following members of Mr. Bennett's office: Mr. Wm. E. Parsons, who has been in general charge of the work; Mr. H. T. Frost for the study of the economic problems of the general plan; Mr. F. C. Walker for its pictorial presentation.

E. H. BENNETT.

January, 1917.

The Elgin City Plan Commission

Since the material in this report was prepared and placed in type, the Elgin Commercial Club has turned over the Elgin City Plan to a more representative body, The Elgin City Plan Commission, whose organization is as follows:

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